CLAIMS

1. A packet forwarding system, comprising:

(a) an interface system for receiving packets and having a plurality of channels;

(b) a plurality of framing service engines; and

(c) a channel manager for assigning channels to ones of the framing service engines.

2. The system as recited in claim 1, wherein the channel manager is configured to receive data about the framing service engines.

3. The system as recited in claim 2, wherein the channel manager is configured to assign channels to ones of the framing service engines on the basis of the data.

4. The system as recited in claim 3, wherein the data includes information about utilization of framing service engines.

5. The system as recited in claim 4, further comprising a framing memory for buffering communication between the interface system and the plurality of framing service engines.

6. The system as recited in claim 4, wherein at least one framing service engine is configured to frame packets and at least one framing service engine is configured to deframe packets.

7. The system as recited in claim 6, wherein the framing service engines are configured to operate on AHDLC packets.

8. The system as recited in claim 7, wherein the interface system comprises a plurality of network interfaces terminating a plurality of point to point links.

9. A packet processing system comprising:

an interface system comprising a plurality of network interfaces said interface system terminating a plurality of point to point links; and

a framing system providing framing services to support said plurality of network interfaces in terminating said plurality of point to point links.

10. The packet processing system of claim 9 wherein said framing system comprises a plurality of framing service engines.

11. The packet processing system of claim 10 wherein said framing system further comprises a channel manager that actively allocates framing service engines ones of said plurality of point to point links requiring framing services.

12. The packet processing system of claim 10 further comprising a framing memory to buffer communication between said plurality of framing service engines and said plurality of network interfaces.

13. The packet processing system of claim 10 wherein at least one of said framing service engines comprises a framing engine and a deframing engine.

14. The packet processing system of claim 9 wherein said plurality of point to point links operate according to PPP and said framing system provides framing services in accordance with HDLC protocol.

15. A method of processing packets with an interface system having a plurality of channels, comprising the steps of:

(a) providing a plurality of framing service engines; and

(b) assigning channels to ones of the framing service engines.

16. The method as recited in claim 15, further comprising the step of receiving data about the framing service engines.

17. The method as recited in claim 16, wherein the step of assigning channels to ones of the framing service engines includes the step of assigning channels on the basis of the data.

18. The method as recited in claim 17, wherein the step of receiving data about the framing service engines includes receiving information about utilization of framing service engines.

19. The method as recited in claim 18, further comprising the step of buffering communication between the interface system and the plurality of framing service engines.

20. A computer program product for processing packets with an interface system having a plurality of channels, comprising a computer usable medium having machine readable code embodied therein for performing the steps of:

(a) providing a plurality of framing service engines; and

(b) assigning channels to ones of the framing service engines.

21. A computer program product for processing packets with an interface system having a plurality of channels and a plurality of framing service engines, comprising a computer usable medium having machine readable code embodied therein for performing the step of assigning channels to ones of the framing service engines.

22. The computer program product as recited in claim 20, further configured to perform the step of receiving data about the framing service engines.

23. The computer program product as recited in claim 21, wherein the step of assigning channels to ones of the framing service engines includes the step of assigning channels on the basis of the data.